

## **Claims**

1. A method for producing structured documents, the method comprising:
  - 5 receiving a definition file including document type definitions (DTD);
  - displaying a metafile along with the definition file, the metafile including a number of displayable objects and respective decoration attributes about each of the displayable objects; and
- 10 associating at least one of the definitions in the definition file with one of the displayable objects.
2. The method of claim 1 further comprising:
  - 15 generating a modified metafile that includes the displayable objects, each being associated with the at least one of the definitions in the definition file.
3. The method of claim 2 further comprising converting modified metafile to a markup language file in accordance with a set of mapping rules.
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4. The method of claim 1, wherein the definition file includes a structure for document elements, each corresponding to one of the displayable objects in the metafile.

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5. The method of claim 4, wherein some of the document elements include another layer of sub-document elements, each of sub-document elements corresponds to one of the displayable objects in the metafile.

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6. The method of claim 4, wherein at least some of the document elements include respectively a number of identifiers, each of the identifiers being assigned to one of the at least some of the document elements.

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7. The method of claim 6, wherein some of the identifiers are one or more of numerals and alphabets.

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8. The method of claim 6, wherein some of the identifiers are selected from a group consisting of a font type, a color name, a size, a style, and an effect..

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9. The method of claim 6, wherein the associating of the at least one of the definitions in the definition file comprises:

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selecting one of the displayable objects; and  
assigning one of the identifiers to the selected display object.

10. The method of claim 9, wherein the one of the identifiers is either a numeral or an alphabet.

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11. The method of claim 10, wherein the one of the identifiers is one or more of (i) a font type, (ii) a color, (iii) a size, (iv) a style, and (v) an effect..

5 12. The method of claim 1, wherein the metafile is or is generated from an unstructured document that is composed, edited or managed by an authoring tool.

10 13. The method of claim 12, wherein some of the displayable objects are respective groups of characters.

14. The method of claim 13, wherein some of the decoration attributes include at least positions, font color, font size, font type, style, and effect for each of the groups of characters.

15 15. A method for producing structured documents, the method comprising:  
activating an environment including a first display and a second display, the first display displaying a metafile and the second display displaying a definition file including document type definitions (DTD), wherein the metafile including a number of displayable objects and respective decoration attributes about each of the displayable objects, and wherein each of the document type definitions includes an identifier;

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grouping a number of group objects, each of the group  
objects including a number of the displayable objects;  
and  
associating each of the group objects with the identifier in  
5 one of the document type definitions.

16. The method of claim 15 further comprising generating a  
modified metafile including information of each of the group  
objects being associated with the identifier in one of the  
10 document type definitions.

17. The method of claim 16 further comprising:

15 converting the modified metafile to a markup language file in  
accordance with mapping rules.

18. The method of claim 17 wherein the markup language file is  
suitable for presentation on a selected media.

20 19. The method of claim 18 wherein the selected media is a web  
presentation on the Internet.

25 20. The method of claim 18 wherein the markup language file is  
based on a markup language selected from a group consisting  
of HyperText Markup Language (HTML), compact HyperText  
Markup Language (cHTML), Extensible Markup Language

(XML), Standard Generalized Markup Language (SGML) or  
Wireless Markup Language (WML).

21. The method of claim 15 wherein some of the decoration  
5 attributes include at least position, font type, color, size, style,  
and effect for each of the groups of characters.

10 22. The method of claim 21 wherein some of the displayable objects  
are respective groups of characters.

15 23. The method of claim 22, wherein the identifier is one or more of  
a numeral and an alphabet.

20 24. The method of claim 23, wherein the identifier is one or more of  
(i) a font type, (ii) a color, (iii) a size, (iv) a style, and (v) an  
effect.

25 25. A machine-readable medium embodying instructions for  
execution by a processor, the instructions, when executed by  
the processor, causing the processor to produce structured  
documents, the machine-readable medium comprising:  
program code for receiving a definition file including  
document type definitions (DTD);  
program code for displaying a metafile along with the  
definition file, the metafile including a number of  
displayable objects and respective decoration attributes  
about each of the displayable objects; and

program code for associating at least one of the definitions in the definition file with one of the displayable objects.

26. The machine-readable medium of claim 25 further comprising:

5 program code for generating a modified metafile that includes the displayable objects, each being associated with the at least one of the definitions in the definition file.

27. The machine-readable medium of claim 25 further comprising

10 program code for converting modified metafile to a markup language file in accordance with a set of mapping rules.

28. The machine-readable medium of claim 25, wherein the definition file includes a structure for document elements, each 15 corresponding to one of the displayable objects in the metafile.

29. The machine-readable medium of claim 28, wherein some of the document elements include another layer of sub-document elements, each of sub-document elements corresponds to one 20 of the displayable objects in the metafile.

30. The machine-readable medium of claim 28, wherein at least some of the document elements include respectively a number of identifiers, each of the identifiers being assigned to one of the 25 at least some of the document elements.

31. The machine-readable medium of claim 30, wherein some of  
the identifiers are one of either numerals or alphabets.

5 32. The machine-readable medium of claim 30, wherein some of  
the identifiers are selected from a group consisting of a font  
type, a color, a size, a style, and an effect.

10 33. The machine-readable medium of claim 30, wherein the  
associating of the at least one of the definitions in the definition  
file comprises:  
program code for selecting one of the displayable objects;  
and  
program code for assigning one of the identifiers to the  
selected display object.

15 34. The machine-readable medium of claim 33, wherein the one of  
the identifiers is one or more of a numeral and an alphabet.

20 35. The machine-readable medium of claim 34, wherein the one of  
the identifiers is one or more of (i) a font type, (ii) a color, (iii) a  
size, (iv) a style, and (v) an effect.

25 36. The machine-readable medium of claim 25, wherein the metafile  
is or is generated from an unstructured document that is  
composed, edited or managed by an authoring tool.

37. The machine-readable medium of claim 36, wherein some of the displayable objects are respective groups of characters.

38. The machine-readable medium of claim 37, wherein some of 5 the decoration attributes include at least position, font type, color, size, style, and effect for each of the groups of characters.

39. A machine-readable medium embodying instructions for 10 execution by a processor, the instructions, when executed by the processor, causing the processor to produce structured documents, the machine-readable medium comprising:

15 program code for activating an environment including a first display and a second display, the first display displaying a metafile and the second display displaying a definition file including document type definitions (DTD), wherein the metafile including a number of displayable objects and respective decoration attributes about each of the displayable objects, and wherein each of the document type definitions includes an identifier;

20 program code for grouping a number of group objects, each of the group objects including a number of the displayable objects; and

25 program code for associating each of the group objects with the identifier in one of the document type definitions.

40. The machine-readable medium of claim 39 further comprising program code for generating a modified metafile including

information of each of the group objects being associated with the identifier in one of the document type definitions .

41. The machine-readable medium of claim 40 further comprising  
5 program code for converting the modified metafile to a markup language file in accordance with mapping rules.

10 42. The method of claim 39 wherein some of the decoration attributes include at least position, font type, color, size, style, and effect for each of the groups of characters and wherein some of the displayable objects are respective groups of characters.